IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNITED STATES OF AMERICA and COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION,

Plaintiffs,

v.

Civil Action No. 2:18-cv-00520-LPL

MARKWEST LIBERTY MIDSTREAM & RESOURCES, L.L.C. and OHIO GATHERING COMPANY, L.L.C.,

Defendants.

SECOND NON-MATERIAL MODIFICATION OF CONSENT DECREE

WHEREAS, this Court entered a Consent Decree in this action on July 9, 2018 (ECF No. 11).

WHEREAS, MarkWest Liberty Midstream & Resources, L.L.C. and Ohio Gathering Company, L.L.C. (collectively "MarkWest") own and operate, among other things, natural gas pipelines, which they must keep free of debris and accumulated liquids. They do this by "pigging" the lines.

WHEREAS, pigging involves inserting a cylindrical device known as a "pig" into a pipeline through a pig launcher. Pipeline pressure pushes the pig through the line, clearing liquids as it goes. The pig is removed at designated points on the pipeline known as pig receivers.

WHEREAS, to insert or remove a pig, the pig launcher/receiver must be isolated from the rest of the pipeline so that the launcher or receiver (also known as a "pig barrel") can be opened.

WHEREAS, MarkWest is generally required to control emissions during pigging operations. As a general rule, MarkWest does this by routing gases in the pig barrel to a low pressure line and/or flaring the gases.

WHEREAS, Paragraph 15 of the Consent Decree requires MarkWest to replace the existing flare at the Smith Tee Stand-Alone Facility with a new "candlestick" flare to control emissions during pigging operations.

WHEREAS, Paragraphs 18.d and 19.d of the Consent Decree require MarkWest to use a Mobile Flare to control VOC emissions at various facilities in Ohio when necessary to ensure that VOC emissions do not exceed the Ohio VOC Permitting Threshold or comply with the Ohio SIP.

WHEREAS, Zero Emission Vacuum and Compressor ("ZEVAC") is a relatively new technology that provides an alternative to flaring. ZEVAC uses a compressor, powered by air, to suction gas from a pig barrel and discharge it to an adjacent pressurized pipeline.

WHEREAS, the use of ZEVAC technology to control pigging emissions, compared to a "candlestick" or Mobile Flare, should result in lower emissions, safer operations, and fewer citizen complaints. The use of ZEVAC should result in lower emissions for two reasons. First, ZEVAC can reduce the pressure in a pig barrel more than a candlestick or Mobile Flare can. The lower the pressure, the less gas remaining in the barrel. This means that there are fewer pollutants remaining in a pig barrel controlled by ZEVAC and, thus, correspondingly fewer pollutants that are emitted when the barrel is opened. Second, ZEVAC does not result in any emissions – all the gases (down to approximately seven psig) are suctioned from the pig barrel

and discharged to an adjacent pipeline. The use of candlestick and Mobile Flares results in some emissions, as their VOC destruction efficiency is 98%. ZEVAC should result in safer operations and fewer citizen complaints because ZEVAC uses compressed air, which is not combustible, whereas flares have open flames.

WHEREAS, the United States, the Commonwealth of Pennsylvania, Department of Environmental Protection, and MarkWest (the "Parties") agree to modify the Consent Decree as described herein to allow MarkWest to use a ZEVAC Unit rather than a candlestick flare (at the Smith Tee Stand-Alone Facility) or a Mobile Flare (at the facilities specified in Appendices 4 and 5);

WHEREAS, pursuant to Paragraph 113 of the Consent Decree, any modification of the Consent Decree must be in writing and signed by the Parties; and

WHEREAS, the change to the Consent Decree agreed to herein represents a non-material modification that does not require Court approval pursuant to Paragraph 113 of the Consent Decree.

NOW THEN, the Parties hereby agree to the following non-material modification to the Consent Decree:

- 1. All capitalized terms used but not defined in this Notice have the meaning ascribed to them in the Consent Decree.
 - 2. The Parties agree to add a new Paragraph 10.ff as follows:

""Control Device" shall mean a Mobile Flare or ZEVAC Unit."

3. The Parties agree to add a new Paragraph 10.gg as follows:

""ZEVAC Unit" shall mean a Zero Emission Vacuum and Compressor (a) that uses compressed air to suction gas from a pig barrel and then compress it to pipeline pressure so that it can be

discharged into an adjacent pipeline and (b) is installed, operated, and maintained in accordance with manufacturer specifications."

- 4. Paragraph 15 of the Consent Decree currently provides:
- "Pennsylvania Launcher/Receiver Smith Tee Emissions Flare Replacement. At the Smith Tee Stand-Alone Facility (the location of which is identified in Appendix 3) in Pennsylvania, MarkWest shall replace the existing flare with a new "candlestick" flare. The replacement candlestick flare system shall be designed to (a) provide smokeless and low heat radiation flaring, (b) maintain its pilot light in winds up to 50 mph, and (c) generate a hydrocarbon gas-air mixture using an air inspirator ignition."
- 5. The Parties agree to modify Paragraph 15 as follows:

 "Pennsylvania Launcher/Receiver Smith Tee Emissions Flare Replacement. At the Smith Tee

 Stand-Alone Facility (the location of which is identified in Appendix 3) in Pennsylvania,

 MarkWest shall replace the existing flare with a ZEVAC Unit. MarkWest shall use the ZEVAC

 Unit to capture and control emissions during all pigging operations."
- 6. The Parties agree to modify Paragraphs 18.d, 19.d, 58.l, and 60.f of the Consent Decree by replacing the term "Mobile Flare" with "Control Device."
- 7. Paragraph 58.b of the Consent Decree currently provides:
 "The date of the replacement of the candlestick flare at the Smith Tee facility, as required by Paragraph 15."
- 8. The Parties agree to modify Paragraph 58.b as follows: "The date of the replacement of the flare at the Smith Tee facility with a ZEVAC Unit, as required by Paragraph 15."

- 9. All provisions of the Consent Decree unaffected by these modifications shall operate in conjunction with these new provisions in the same manner and to the same extent as did the substituted language in the original Consent Decree.
- 10. Except as specifically provided in this Notice, the Parties intend that all other terms and conditions of the Consent Decree will remain unchanged and in full effect.

FOR THE UNITED STATES OF AMERICA

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